

REMARKS

Further and favorable reconsideration is respectfully requested in view of the foregoing amendments and following remarks.

Claims 1-5 are pending in this application. By this Amendment, claims 1-5 are cancelled, and new claims 7-18 are added.

Entry of the amendments is proper under 37 CFR § 1.116, because the amendments place the application in condition for allowance for the reasons discussed below. The amendments are necessary and were not earlier presented, because they are made in response to arguments made in the Final Rejection. Entry of the amendments is thus respectfully requested.

Support for new claim 7 can be found at page 2, lines 13-19 and page 6, lines 20-22 of the specification.

Support for new claims 10 and 16 can be found at page 2, lines 13-19 and page 6, lines 12-15 of the specification.

Support for new claim 13 can be found at page 2, lines 13-19 and page 6, lines 15-19 of the specification.

Support for new claims 8, 11, 14 and 17 can be found at page 2, lines 24-26 of the specification.

Support for new claims 9, 12, 15 and 18 can be found at page 2, lines 20-23 of the specification.

I. Claim Rejection Under 35 U.S.C. § 102

The Examiner rejects claims 1, 2 and 4 under 35 U.S.C. § 102(a) as being anticipated by Ajayan et al. By this Amendment, claims 1, 2 and 4 are cancelled, rendering the rejection moot. However, as applied to new claims 7-18, Applicants respectfully traverse the rejection.

Claims 7, 10, 13 and 16 recite a method for selecting single-walled carbon nanotubes of a **specific diameter or specific combination of diameters (i.e., 0.96 nm, 1.0 nm, 1.1 nm or 1.2 nm)** from a mixture of single-walled carbon nanotubes of various diameters, comprising irradiating the mixture of single-walled carbon nanotubes of various diameters with a light beam

of a **single wavelength of a particular diameter (i.e., 420 nm, 500 nm or 620 nm)** under an oxidative environment.

The reference does not teach the excitation wavelength corresponding to each diameter of the single-walled carbon nanotubes ("SWCNTs"). Thus, the reference does not teach a method for selecting SWCNTs having the recited diameters comprising irradiating the mixture of SWCNTs with a light beam of a single wavelength as recited in claims 7, 10, 13 and 16.

Furthermore, the Examiner asserts that Applicants claim a single wavelength, but, given its broadest reasonable interpretation, a broad spectrum is composed of single, individual wavelengths. However, claims 7, 10, 13 and 16 recite a single wavelength of a particular diameter. Therefore, the "a single wavelength" is not a broad spectrum of light, such as the flashlight of a camera which is disclosed in the reference.

Therefore, the reference does not teach each and every feature of claims 7, 10, 13 and 16. Accordingly, the reference does not anticipate claims 7, 10, 13 and 16. Claims 8, 9, 11, 12, 14, 15, 17 and 18 depend directly or indirectly from claims 7, 10, 13 and 16, and thus also are not anticipated by the reference.

II. Claim Rejections Under 35 U.S.C. § 103

The Examiner rejects claims 1-4 under 35 U.S.C. § 103(a) as being unpatentable over Ajayan et al. and Huang et al. By this Amendment, claims 1-4 are cancelled, rendering the rejection moot. However, as applied to new claims 7-18, Applicants respectfully traverse the rejection.

As discussed above, the Ajayan et al. reference does not teach the excitation wavelength corresponding to each diameter of the SWCNTs, as recited in claims 7, 10, 13 and 16. The Huang et al. reference does not cure these deficiencies, as the Huang et al. reference also does not teach or suggest a method for selecting single-walled carbon nanotubes of a **specific diameter or specific combination of diameters (i.e., 0.96 nm, 1.0 nm, 1.1 nm or 1.2 nm)** from a mixture of single-walled carbon nanotubes of various diameters, comprising irradiating the mixture of single-walled carbon nanotubes of various diameters with a light beam of a **single wavelength of a particular diameter (i.e., 420 nm, 500 nm or 620 nm)** under an oxidative environment.

Furthermore, the present invention provides unexpected results over the prior art. For instance, in Example 1 of the specification, when the irradiation occurred with a light beam of a 500 nm wavelength, two kinds of new SWCNTs with a diameter of 1.35 nm and 1.56 nm were produced. Such results would have been beyond the scope of theoretical speculation and common sense to one of ordinary skill in the art.

A theoretical speculation based upon the conventional knowledge known at the time the present invention was made would not have been sufficient to accomplish the present invention. Thus, one of ordinary skill in the art would have needed the teachings of the present specification in order to accomplish the present invention.

Thus, new claims 7, 10, 13 and 16 would not have been obvious over the references. New claims 8, 9, 11, 12, 14, 15, 17 and 18 depend directly or indirectly from claims 7, 10, 13 and 16, and thus also would not have been obvious over the references.

The Examiner also rejects claims 1-5 under 35 U.S.C. § 103(a) as being unpatentable over Kataura et al., Wintmere et al., Cooper (US 5,294,315), Cooper (US 5,116,582), Cooper (US 5,174,877) and Huang et al. By this Amendment, claims 1-5 are cancelled, rendering the rejection moot. However, as applied to new claims 7-18, Applicants respectfully traverse the rejection.

None of the cited references teach or suggest a method for selecting single-walled carbon nanotubes of a **specific diameter or specific combination of diameters (i.e., 0.96 nm, 1.0 nm, 1.1 nm or 1.2 nm)** from a mixture of single-walled carbon nanotubes of various diameters, comprising irradiating the mixture of single-walled carbon nanotubes of various diameters with a light beam of a **single wavelength of a particular diameter (i.e., 420 nm, 500 nm or 620 nm)** under an oxidative environment.

Accordingly, claims 7, 10, 13 and 16 would not have been obvious over the references. Claims 8, 9, 11, 12, 14, 15, 17 and 18 depend directly or indirectly from claims 7, 10, 13 and 16, and thus also would not have been obvious over the references.

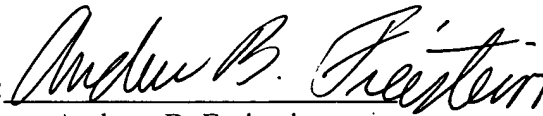
III. Conclusion

For these reasons, Applicants take the position that the presently claimed invention is clearly patentable over the applied references.

Therefore, in view of the foregoing amendments and remarks, it is submitted that the rejections set forth by the Examiner have been overcome, and that the application is in condition for allowance. Such allowance is solicited.

Respectfully submitted,

Sumio IJIMA et al.

By: 

Andrew B. Freistein
Registration No. 52,917
Attorney for Applicants

AES/ABF/rgf
Washington, D.C. 20005-1503
Telephone (202) 721-8200
Facsimile (202) 721-8250
July 15, 2009